IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(s):	Themier	CONF. NO.:	6585
SERIAL NO.:	09/847,145	ART UNIT:	2174
FILING DATE:	05/02/2001	EXAMINER:	Nguyen, Le V.
TITLE:	METHOD FOR CONTROLLING A SYSTEM, ESPECIALLY AN ELECTRICAL AND/OR ELECTRONIC SYSTEM COMPRISING AT LEAST ONE APPLICATION DEVICE		
ATTORNEY DOCKET NO.:	1001-010326-US(PAR)		

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APPELLANT'S BRIEF

This is an appeal from the final rejection (dated February 23, 2007) of the claims in the above-identified application. A Notice of Appeal was filed on May 22, 2007 concurrently with the filing of a Pre-appeal Brief Request For Review. A decision on the Pre-appeal Brief, adverse to the Applicant, issued on August 23, 2007.   A petition for a 2-month extension of time is enclosed herewith.

The fees required for submission of this brief are submitted herewith. An appendix of claims involved in this appeal is attached hereto.

I. REAL PARTY IN INTEREST

The real party in interest in this Appeal is: NOKIA CORPORATION of Espoo, Finland.

II.   RELATED APPEALS AND INTERFERENCES

There are no directly related appeals or interferences regarding this application.

III.   STATUS OF CLAIMS

There are 22 claims in this application.

None of the 22 claims have been cancelled.

Claims 1-22 are pending in the application.

Claims 1-22 have been finally rejected.

The claims on appeal are claims 1-22.

IV. STATUS OF AMENDMENTS

The "Pre-appeal Brief Request For Review" was the first response filed after the Final Rejection. The wording of the claims is therefore the same as presented in an amendment filed prior to the Final Rejection, which amendment was filed in response to the non-Final Office Action dated September 9, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

With reference to the present specification and drawing figures, the present invention relates to a method (claims 1, 10, 22) for controlling a system, especially an electrical and/or electronic system comprising a plurality of application devices, wherein an application device is controlled in accordance with the result of an interpretation of an instruction; and also to a system (claim 12) comprising a set of application devices, as well as to an interface (claim 14) for a user of a system having a set of application devices, wherein an application device is controlled in accordance with the result of an interpretation of an instruction.

By way of example, the invention is useful in the entry of requests or control inputs into a mobile device, where such requests or control inputs might relate to navigation data, adjustment of a clock, selecting a radio station, and other such functions as might be provided in the control panel, for example, of an automobile or a hand-held device.

With respect to the independent claims 1, 10, 12, 14, and 22, the following features of the claimed subject matter are noted.

Claim 1 relates to a method for controlling a system, especially an electrical and/or electronic system comprising a plurality of application devices (specification, page 4 at lines 24-26), wherein there is a step of receiving control information from a user independently of a permanently predetermined menu structure (specification, page 2 at lines 24-36). The step is followed by identification of the control information and a step of interpreting an instruction of the control information in accordance with available ones of the application devices (specification, page 1 at lines 37-39, to page 2 at line 1) by checking whether the control information is known, unambiguous (Fig. 3 at block S18) and complete for one of the application devices. In a case of ambiguity of the control information, the user is signaled (specification, page 6 at line 37 to page 7 at line 2) to enter further control information relating to a selection of possible applications to

which the ambiguous control information can be applied until the totality of inputted control information is unambiguous. Thereupon, an application device (specification, page 2 at lines 1-3) is controlled in accordance with the result of the interpretation.

Claim 10 relates to a method for controlling a system having a plurality of application devices (specification, page 4 at lines 24-26), wherein there is a step of receiving control information at the system inputted by a user of the system. The step is followed by identification of the control information and a step of interpreting an instruction of the control information in accordance with available ones of the application devices (specification, page 1 at lines 37-39, to page 2 at line 1) by checking whether the control information is known, unambiguous (Fig. 3 at block S18) and complete for one of the application devices. In the event of the presence of a lack of knowledge or ambiguity or incompleteness of the control information, the system signals (Fig.3 at blocks S16-S21) the user to resolve a lack of knowledge or ambiguity or incompleteness of the control information. The signaling is independent (specification, page 2 at lines 24-36) of a permanently predetermined menu structure, and enables the user to enter a response for resolving the lack of knowledge or ambiguity or incompleteness of the control information for one of the application devices. The signaling enables the user to enter further control information (specification, page 3 at lines 20-25) relating to a selection of possible applications to which the ambiguous control information can be applied until the totality of inputted control information is unambiguous. Thereupon, an application device (specification, page 2 at lines 1-3) is controlled in accordance with the result of the interpretation.

Claim 12 relates to a system comprising a set of application devices (specification, page 4 at lines 24-26) having at least one application device, and an input device for receiving control information from a user independently of a permanently predetermined menu structure (specification, page 2 at lines 24-36). The system is operative to identify the received control information, and to interpret an instruction of the control information from the input device in accordance with available ones of the

application devices (specification, page 1 at lines 37-39, to page 2 at line 1) by checking whether the control information is known, unambiguous (Fig. 3 at block S18) and complete for one of the application devices. In a case of ambiguity of the control information, the user is signaled (specification, page 6 at line 37 to page 7 at line 2) to enter further control information relating to a selection of possible applications to which the ambiguous control information can be applied until the totality of inputted control information is unambiguous. Thereupon, an application device (specification, page 2 at lines 1-3) is controlled in accordance with the result of the interpretation.

Claim 14 relates to an interface for a user of a system having a set of application devices (specification, page 4 at lines 24-26) including at least one application device, wherein the interface comprises an input device for receiving control information from the user independently of a permanently predetermined menu structure (specification, page 2 at lines 24-36). The system is operative to identify the received control information, and to interpret an instruction of the control information from the input device in accordance with available ones of the application devices (specification, page 1 at lines 37-39, to page 2 at line 1) by checking whether the control information is known, unambiguous (Fig. 3 at block S18) and complete for one of the application devices. In a case of ambiguity of the control information, the user is signaled (specification, page 6 at line 37 to page 7 at line 2) to enter further control information relating to a selection of possible applications to which the ambiguous control information can be applied until the totality of inputted control information is unambiguous. Thereupon, an application device (specification, page 2 at lines 1-3) is controlled in accordance with the result of the interpretation.

Claim 22 relates to a method for controlling a system, especially an electrical and/or electronic system comprising a plurality of application devices (specification, page 4 at lines 24-26), wherein there is a step of receiving control information from a user, followed by a step of identifying (specification, page 3 at lines 5-8) the received control information. There is a further step of interpreting the control information in accordance

with available ones of the application devices (specification, page 1 at lines 37-39, to page 2 at line 1) to determine if the control information is a valid input for one or more of the application devices, the interpreting including a determining of whether the control information is known, unambiguous (Fig. 3 at block S18) and complete for one of the application devices. Upon a determination that the control information is unknown, or ambiguous with respect to a plurality of said application devices and/or with respect to a plurality of functions within one of said application devices, or incomplete for said one application device (Fig.3 at blocks S16-S21), there is a step of signaling the user to enter further data for resolving an unknown control information, an ambiguous control information, and/or an incomplete control information. Thereupon, upon a resolving of the control information, an application device (specification, page 2 at lines 1-3) is controlled in accordance with the result of the interpretation.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are treated in this appeal.

1. Whether claims 1-8, and 10-22 should be rejected under 35 U.S.C. 103 as being unpatentable over Bush (US 6,397,186) in view of Houser (US 5,774,859) for reasons set forth in Point 4 of the Final Office Action.

2. Whether claim 9 should be rejected under 35 U.S.C. 103 as being unpatentable over Bush (US 6,397,186) in view of Houser (US 5,774,859) and Osawa (GB 2 275 800 A) for reasons set forth in Point 5 of the Final Office Action.

VII. ARGUMENT

In the Final Office Action, claims 1-8 and 10-22 were rejected under 35 U.S.C. 103 as being unpatentable over Bush (US 6,397,186) in view of Houser (US 5,774,859) for reasons set forth in Point 4 of the Final Office Action, and also claim 9 was rejected under 35 U.S.C. 103 as being unpatentable over Bush (US 6,397,186) in view of Houser (US 5,774,859) and Osawa (GB 2 275 800 A) for reasons set forth in Point 5 of the Final Office Action.

In Point 6 of the Office Action, the examiner noted that prior arguments of the Applicant were moot in view of new grounds of rejection raised in the Office Action.

The following argument is presented to overcome the grounds of rejection raised by the examiner, and to show the presence of allowable subject matter in the claims.

FIRST GROUND OF REJECTION: WHETHER CLAIMS 1-8 and 10-22 SHOULD BE REJECTED UNDER 35 U.S.C. 103 AS BEING UNPATENTABLE.

These claims include all of the independent claims, plus all of the dependent claims except for claim 9. In the rejection, the examiner notes two passages in Bush (in columns 5 and 22) and also relies on a passage of Houser in column 19 for the rejection of independent claims 1, 10 and 22. Independent claims 12 and 14 are treated as claim 1. As set forth in Point 4 of the Action, the passage in column 5 of Bush is said to address the matters of the presently claimed subject matter of the menu structure, and the matters of the control information being known, unambiguous and complete. But these matters appear not to be addressed by Bush in the cited passage, and also the other two cited passages do not provide much descriptive material that can be suggestive of the presently claimed subject matter.

This lack of disclosure of the presently claimed subject matter arises because both Bush and Houser are directed to the mechanics of construction of voice recognition circuitry, and deal with treatment of a failure of the circuitry to interpret an acoustic input signal. In the present invention, there is concern for a person who, even if he is speaking clearly, fails to choose a correct word, and thereby does not provide an adequate message for instructing the electronic system to provide a desired response. Thus, the presently cited art fails to address the claimed subject matter. Therefore, it is urged that there is patentable subject matter in the rejected claims.

SECOND GROUND OF REJECTION: WHETHER CLAIM 9 SHOULD BE REJECTED UNDER 35 U.S.C. 103 AS BEING UNPATENTABLE.

In the rejection of this claim, the examiner combines the teachings of Osawa with the teachings of Bush and Houser to provide for a teaching of the use of data records referred to in claim 9. This does not alter the argument present above for all of the independent claims. Therefore, it is urged that there is patentable subject matter in the rejected claims.

OBSERVATIONS APPLICABLE TO ALL THE GROUNDS OF REJECTION

The present invention provides the advantage of facilitating the entry of command inputs and/or data to a control panel which operates devices providing a plurality of functions. The basic elements of the claimed subject matter, as set forth in both the method and the apparatus claims, may be stated generally by the following four statements:

(1) receiving and identifying control information at the system;

(2) interpreting an instruction of the control information in accordance with available ones of the application devices by checking whether the control information is known, unambiguous and complete for one of the application devices;

(3) signaling the user, in a case of ambiguity of the control information, to enter further control information; and

(4) controlling the one application device.

A further element set forth in some of the claims is the feature of signaling to the user to resolve a lack of knowledge or ambiguity or incompleteness of the control information.

With respect to rejection of claim 1, the examiner (bottom of page 2 of the Action) refers to Bush who teaches a wireless, voice-operated control transmitter (Abstract). The examiner lists structure from Bush that is said to correspond to limitations of claim 1. However, the examiner admits (last two words of page 2 and top of page 3 of the Action) that Bush does not disclose signaling of the user in the case of ambiguity of the control information. The examiner relies on Houser to provide the missing disclosure.

Independent claims 12 and 14 are rejected on grounds similar to the grounds for rejection of claim 1

With respect to the rejection of independent claim 10, the examiner refers (paragraph linking pages 5-6 of the Action) to the same passages in Bush and in Houser, as are employed in the rejection of claim 1.

Also, with respect to independent claim 22, the examiner relies on citations of art that are found in the rejection of claims 1 and 10.

The Applicant argues that a distinguishing feature of the claimed subject matter, which distinguishes the claimed subject matter from Houser, considered in combination with Bush, is the inventive feature wherein, in the case of ambiguity of the control information, the user is signaled to enter further control information relating to a selection of possible applications to which the ambiguous control information can be applied until the totality of inputted control information is unambiguous. Considerations of the interface between the system and the person using the system is described at length in the specification beginning on page 1, at line 37, through page 4 at line 7. In the event that the person experiences difficulty in communicating accurately with the system, the system helps the person to communicate. This is the feature that the examiner seeks to find in Houser.

It is urged that the teachings of Houser, considered in combination with Bush, do not suggest the presently claimed subject matter. The following observations about the Houser teachings are believed to negate any motivation to combine the references, and furthermore show that the Houser teachings relate to material distinctly different from the claimed subject matter. This is the case with the signaling of the user in the case of ambiguity of the control information, the disclosure which the examiner attempts to obtain from Houser.

The teaching of Houser relates to a system for controlling a device, such as a television, and for controlling access to broadcast information such as video, audio, and/or text information. A remote control 166 provides spoken control of devices 162-1 to 162-n. The exemplary vocabulary set is shown in table I in col. 18; a supplementary command grammar specifies how the words of the vocabulary set may be used. For instance, the user may utter "POWER ON", such that upon recognition of this command, a television set (162-2) is switched on, or the user may utter "POWER OFF" such that the television set is switched off (cf. col. 19, line 61 to col. 20, line 9). Likewise, the user may utter "GOTO CHANNEL NUMBER", where NUMBER is a user spoken number such that television set is tuned to the corresponding spoken channel number (cf. col. 20, line 62 to col. 21, line 5).

Houser further suggests a handling of misrecognition, which is performed when the user uttered (spoken) input cannot be identified at the required likelihood level. Herein, misrecognition means that two recognition options have comparable likelihoods, which means that the speech recognition software cannot identify which command of a plurality of possible commands is actually intended by the user uttered (spoken) input. In col. 19, lines 37 to 52, this error handling is described on the basis of the user uttered command "GOTO CHANNEL SIXTEEN", which can be confused by the speech recognition software with the command "GOTO CHANNEL SIXTY". In such a case, the more commonly spoken command may be implemented.

It is important to understand the usage of terminology in the present claims and in the Houser reference. Attention is directed to the terms "known", "unambiguous", and "complete", which should be understood in the context of the description of the present specification (cf. in particular sections [0032] to [0034] of the specification).

With respect to the use of terminology in the claims, it is understood from present Fig. 3 that "known" (operation S16) concerns subject matter such as a "misrecognized" input discussed by Houser. This means that in case of an "unknown" input, the user input should be repeated by returning to the input operation S11. The correspondence of the term "known" and "misrecognition" can be made out from the substantially same operational sequence, which suggests dismissing the first "misrecognized" input, and processing the new input uttered by the user. Attention may be drawn also to the example given in paragraph [0038] of the present specification, where the handling of misrecognition is described as being performed by the operations S13 and S14.

Further, an input is "ambiguous" in case the known input can be executed in a number of applications or is associated with a number of functions in an application. In this case, further specification is required, which is stipulated by user enquiry of the possibilities indicated (cf. operation S19). Hence, the input (operation SII), which is required from the user is "aggregated" or "composed" upon the previous "ambiguous" input. Each of the

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inputs to be aggregated has to be known to the speech recognition because the operations S15 and S16 are processed independently for each user uttered input. This interpretation of the term "ambiguous" is also supported by the example given in paragraph [0039] of the specification. Further, with reference to paragraph [0039], an input is "ambiguous" if this input can be associated with control instructions concerning different applications.

Moreover, an input is "incomplete" (not "complete") when further information is required in order to execute the instruction. This means that although the input of the user is known and unambiguous, such that one function of one application can be identified, further user input is required for allowing a performing of the function of the application. Similar to an "ambiguous" input, the further information is again "aggregated" or "composed" upon the previous input(s). A corresponding embodiment thereof is described in paragraph [0041] of the specification.

Based on the foregoing observations of Houser, it may be concluded that, according to the teachings of Houser, the speech recognition user interface compares spoken sounds or words with phonemic data of a vocabulary. In case the comparison does not result in a recognition, the user may be prompted to repeal the input. This means, that the spoken sound or words previously inputted by the user are dismissed (Houser, col. 19, lines 27-30 and 32-37). Hence, only the last spoken user input is processed, but not the totality of all user inputs thereof. Alternatively, in case the comparison does not result in a recognition, the subscriber terminal unit identifies similar-sounding commands each having a likelihood defining an assumed actual user intention. If the likelihood of the similar-sounding commands are the same, the user is informed about the identified options, and is asked to select one over the other (Houser, column 19, lines 41 to 46). The first spoken user input is merely processed for identifying the possibly user-intended commands, but upon presentation of the options, among which the user has to select, the first spoken user input is again dismissed, and only the last spoken user input is finally processed. This means that the speech recognition of Houser does not process the totality of all spoken

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user inputs.

The foregoing analysis of the teachings of Houser, considered in combination with the teachings of Bush, demonstrates that the basic thrust of Houser, in dealing with the failure of a system to respond to an ambiguity of the control information, leads to a set of steps of a procedure which differs markedly from that of the presently claimed subject matter. Therefore, it is doubtful that a skilled artisan in this field of endeavor would be motivated to combine the two references and, furthermore, an attempted combination of the two references does not lead one to the presently claimed subject matter.

Therefore, it is believed that grounds upon which the examiner relies do not support the rejection, and the rejection should be withdrawn so as to find allowable subject matter in the claims.
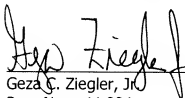
CONCLUSION

Accordingly, it is urged that the arguments presented herein have overcome the grounds of rejection to show the presence of allowable subject matter in the claims. It is requested respectfully that the BOARD OF PATENT APPEALS AND INTERFERENCES reconsiders the foregoing grounds of rejection under 35 U.S.C. 103, and finds the present claims to be allowable.

The appendix of claims is attached hereto.

The Commissioner is hereby authorized to charge payment of ($510) for the Appeal Brief, and a two-month extension of time, as well as any other additional fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

_____
Geza C. Ziegler, Jr.
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25 October 2007
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VIII.   CLAIMS APPENDIX

The texts of the claims involved in the appeal are:

1.   Method for controlling a system, especially an electrical and/or electronic system comprising a plurality of application devices, in which:

control information is received from a user independently of a permanently predetermined menu structure;

the received control information is identified;

an instruction of the control information input is interpreted in accordance with available ones of the application devices by checking whether the control information is known, unambiguous and complete for one of the application devices;

in case of ambiguity of the control information, the user is signaled to enter further control information relating to a selection of possible applications to which the ambiguous control information can be applied until the totality of inputted control information is unambiguous; and

an application device is controlled in accordance with the result of the interpretation.

2.   Method according to Claim 1, characterized in that the control information specified by a user is signaled back to the user as announcement or indication for the purpose of acknowledgement.

3.   Method according to Claim 2, characterized in that control information input which allows a number of possibilities for its interpretation is signaled back as selection list.

4.   Method according to Claim 2, characterized in that control information input which cannot be reliably interpreted is correspondingly marked in a return signaling.

5.   Method according to claim 1, characterized in that a check is made whether the control information is complete in order to be able to execute a requested action, and that the user is requested to complete the control information if this is not the case.

6.   Method according to claim 1, characterized in that the control information input as keyword or keywords is compared with stored keywords for the purpose of interpretation.

7.   Method according to Claim 6, characterized in that the available application devices, control instructions and control parameters are stored as keywords as control information.

8.   Method according to Claim 7, characterized in that the control parameters are stored as lists.

9.   Method according to Claim 7, characterized in that control instructions are stored as data records together with dummy codes for the application devices affected and the control parameters needed in each case to execute the instructions.

10.   Method for controlling a system having a plurality of application devices, the method comprising the steps of:

receiving control information at the system, the control information being inputted by a user of the system;

identifying the received control information;

interpreting an instruction of the control information in accordance with available ones of the application devices by checking whether the control information is known, unambiguous and complete for one of the application devices;

in the event of the presence of a lack of knowledge or ambiguity or incompleteness of the control information, the system signaling to the user to resolve a lack of knowledge or ambiguity or incompleteness of the control information, the signaling to the user being independent of a permanently predetermined menu structure, the signaling enabling the user to enter a response for resolving the lack of knowledge or ambiguity or incompleteness of the control information to insure that the control information is known, unambiguous and complete for one of the application devices;

signaling the user, in a case of ambiguity of the control information, to enter further control information relating to a selection of possible applications to which the ambiguous control information can be applied until the totality of inputted control information is unambiguous; and

controlling the one application device in accordance with the result of the interpretation.

11. Method according to Claim 1, characterized in that further information is requested if the control information is unknown or is ambiguous or is incomplete.

12. A system comprising:

a set of application devices having at least one application device;

an input device for receiving control information from a user independently from a permanently predetermined menu structure;

wherein the system is operative to identify the received control information, and is operative further to interpret an instruction of the control information from the input device in accordance with available ones of the application devices by checking whether the control information is known, unambiguous and complete for one of the application devices;

in case of ambiguity of the control information, the user is signaled to enter further control information relating to a selection of possible applications to which the ambiguous control information can be applied until the totality of inputted control information is unambiguous; and

an application device is controlled in accordance with the result of the interpretation.

13.   A system according to Claim 12, further comprising an output device for outputting information to the user, wherein the system is operative to request, via the output device, further information from the user if the control information is unknown or is ambiguous or is incomplete.

14.   An interface for a user of a system having a set of application devices including at least one application device, the interface comprising:

an input device for receiving control information from the user independently from a permanently predetermined menu structure;

wherein the system is operative to identify the received control information, and is operative further to interpret an instruction of the control information from the input device in accordance with available ones of the application devices by checking whether the control information is known, unambiguous and complete for one of the application devices;

in case of ambiguity of the control information, the user is signaled to enter further control information relating to a selection of possible applications to which the ambiguous control information can be applied until the totality of inputted control information is unambiguous; and

an application device is controlled in accordance with the result of the interpretation.

15. An interface according to Claim 14, wherein the control information specified by a user is signaled back to the user as announcement or indication for the purpose of acknowledgement.

16. An interface according to Claim 15, wherein the control information input which allows a number of possibilities for its interpretation is signaled back as selection list.

17. An interface according to Claim 15, wherein the control information input which cannot be reliably interpreted is correspondingly marked in a return signaling.

18. An interface according to claim 14, wherein a check is made whether the control information is complete in order to be able to execute a requested action, and that the user is requested to complete the control information if this is not the case.

19. An interface according to claim 14, wherein the control information input as keyword or keywords is compared with stored keywords for the purpose of interpretation.

20. An interface according to Claim 19, wherein the available application devices, control instructions and control parameters are stored as keywords as control information.

21.   An interface according to Claim 14, further comprising an output device for outputting information from the system to the user, wherein the system is operative to request, via the output device, further information from the user if the control information is unknown or is ambiguous or is incomplete.

22.   Method for controlling a system, especially an electrical and/or electronic system comprising a plurality of application devices, the method comprising:

receiving control information at the system from a user of the system;

identifying the received control information;

interpreting the control information in accordance with available ones of the application devices to determine if the control information is a valid input for one or more of the application devices, the interpreting including a determining of whether the control information is known, unambiguous and complete for one of the application devices;

upon a determination that the control information is known, unambiguous and complete for one of the application devices, controlling said one application device in accordance with the result of the interpretation;

upon a determination that the control information is unknown, or ambiguous with respect to a plurality of said application devices and/or with respect to a plurality of functions within one of said application devices, or incomplete for said one application device, signaling the user to enter further data for resolving an unknown control information, an ambiguous control information, and/or an incomplete control information; and

upon a resolving of the control information, controlling said one application device in accordance with the result of the interpretation.

IX. EVIDENCE APPENDIX

There is no evidence appendix.

X. RELATED PROCEEDINGS APPENDIX

There is no related proceedings appendix.